ABSTRACT:

An optical scanning device is adapted for scanning record carriers (13, 27) having transparent layers (14, 28) of different thicknesses through which a converging beam (12, 26) must pass. An objective lens (11) of the device is designed to form the converging beam (14) for scanning through a first transparent layer (14). When scanning through a second transparent layer (28), the objective lens is operated at different conjugate distances, resulting in a small field. The field is increased by introducing spherical aberration in the radiation beam (25) incident on the objective lens and compensating this spherical aberration in the objective lens.

Fig. 1